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EXAMINER

HWANG, JOON H

ART UNIT	PAPER NUMBER
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2166

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/714,540

Applicant(s)

CAO ET AL.

Examiner

Joon H. Hwang

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24, 26 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 25 and 27-29 is/are ~~withdrawn from consideration~~ *cancelled*.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24, 26 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The applicants amended claims 1, 11, and 21 and canceled claims 25 and 27-29 in the amendment filed on 1/10/07.

The pending claims are 1-24, 26, and 30.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 11, and 21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 21-24, 26, and 30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claim 21, on page 11, line 9, thru page 12, line 13 of the specification applicant has provided evidence that applicant intends a computer-readable medium to include transmission type media, such as signal, as such the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore the claim(s) is/are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not combination of substances and therefor not a composition of matter. Claims 22-24, 26, and 30 are likewise rejected.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, 21-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buyukkokten et al. ("Seeing the Whole in Parts: Text Summarization for Web Browsing on Handheld Devices", WWW10, May 2-5, 2001, Hong Kong) in view of Malone et al. (U.S. Publication No. 2002/0038348), and further in view of Chen et al. ("Detecting Web Page Structure for Adaptive Viewing on Small Form Factor Devices, WWW2003, May 20-24, 2003, Budapest Hungary).

With respect to claim 1, Buyukkokten teaches receiving a document (i.e., receiving a web page, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4); segmenting the document into blocks of text (i.e., partitioning the web page into STUs, section 1. INTRODUCTION on pages 1-2); and generating at least one keyword and a summary for the document (i.e., *keyword/Summary*, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4). Buyukkokten does not explicitly disclose determining a file type for the document. However, Malone teaches determining a file type for the document and parsing the document as a function of the file type (fig. 7, section 49 on page 5 and sections 50, 52, and 56 on page 6) in order to enable access to any type of information and extract content

information. Therefore, based on Buyukkokten in view of Malone, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Malone to the system of Buyukkokten in order to enable access to any type of information and extract content information. Buyukkokten and Malone do not explicitly disclose identifying segmentation points in the document. However, Chen teaches identifying segmentation points in the document (Abstract on page 1 and section 3. PAGE ANALYSIS on pages 3-10) in order to improve the user's browsing experiences on a device with a small display. Therefore, based on Buyukkokten in view of Malone, and further in view of Chen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Chen to the system of Buyukkokten in order to improve the user's browsing experiences on a device with a small display.

With respect to claim 2, Buyukkokten teaches segmenting includes using outline information to segment text in the document (i.e., partitioning based on paragraphs, lists, tag, or other structural information, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4).

With respect to claim 3, Buyukkokten and Malone disclose the claimed subject matter as discussed above except segmenting including analyzing HTML tags in the document. However, Chen teaches segmenting includes analyzing HTML tags in the document and segmenting text in the document based on the HTML tags (Abstract on page 1 and section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of

claim 3 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 4, Chen further teaches segmenting includes using a position of text in the document (section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of claim 4 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

With respect to claim 5, Buyukkokten teaches providing at least one keyword and a summary for each block of text in the document (i.e., *Keyword/Summary* for each STU, section 3.2 Extracting Summary Sentence on pages 5-6).

With respect to claim 6, Buyukkokten teaches displaying the at least one keyword and summary (fig. 4 on page 3 and section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4).

With respect claim 7, Buyukkokten teaches generating at least one keyword and a summary for individual blocks of text within the document (i.e., *Keyword/Summary* for each STU, section 3 THE SUMMARIZATION PROCESS on pages 4-6).

With respect to claim 8, Buyukkokten and Malone disclose the claimed subject matter as discussed above except establishing potential segmentation points based on text in the document. However, Chen teaches establishing potential segmentation points based on text in the document (i.e., identifying content blocks from the semantic structure of a web page in an iterative manner, Abstract on page 1, section 2. OUR APPROACH on page 3, and section 3. PAGE ANALYSIS on pages 3-10). Therefore,

the limitations of claim 8 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 9, Chen further teaches determining final segmentation points based on similarity of adjacent blocks of text surrounding the potential segmentation points (i.e., identifying content blocks from the semantic structure of a web page in an iterative manner, Abstract on page 1, section 2. OUR APPROACH on page 3, and section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of claim 9 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 21, Buyukkokten teaches retrieving a plurality of documents from at least one document source based on a document query request received from a mobile device (i.e., web pages from the World-Wide Web, fig. 1 on page 1 and section 3. THE SUMMARIZATION PROCESS on pages 4-6); segmenting the plurality of documents into blocks of text (i.e., partitioning the web page into STUs, section 1. INTRODUCTION on pages 1-2); and generating at least one keyword and a summary for each block and sub-block in each of the plurality of documents based on a tree structure to selectively render the at least one keyword, summary, blocks and sub-blocks of text as a function of input to the mobile device (i.e., *keyword/Summary*, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4, fig. 1 on page 1, section 1. INTRODUCTION on pages 1-2, and section 3 THE SUMMARIZATION PROCESS on pages 4-6). Buyukkokten does not explicitly disclose determining a file type for the document. However, Malone teaches determining a file

type for the document and parsing the document as a function of the file type (fig. 7, section 49 on page 5 and sections 50, 52, and 56 on page 6) in order to enable access to any type of information and extract content information. Therefore, based on Buyukkokten in view of Malone, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Malone to the system of Buyukkokten in order to enable access to any type of information and extract content information. Buyukkokten and Malone do not explicitly disclose identifying segmentation points in the document. However, Chen teaches identifying segmentation points in the document (Abstract on page 1 and section 3. PAGE ANALYSIS on pages 3-10) in order to improve the user's browsing experiences on a device with a small display. Chen also teaches establishing potential segmentation points in the blocks of text as a function of the text, segmenting the blocks of text into sub-blocks of text if adjacent paragraphs surrounding the segmentation points are dissimilar, and forming a tree structure indicative of the blocks and sub-blocks (i.e., identifying content blocks from the semantic structure of a web page in an iterative manner, Abstract on page 1, section 2. OUR APPROACH on page 3, and section 3. PAGE ANALYSIS on pages 3-10). Therefore, based on Buyukkokten in view of Malone, and further in view of Chen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Chen to the system of Buyukkokten in order to improve the user's browsing experiences on a device with a small display.

With respect to claim 22, Buyukkokten teaches segmenting the document using outline information associated with the document (i.e., partitioning based on paragraphs,

lists, tag, or other structural information, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4).

With respect to claim 23, Buyukkokten and Malone disclose the claimed subject matter as discussed above except analyzing HTML tags in the document. However, Chen teaches analyzing HTML tags in the document and segmenting text in the document based on the HTML tags (Abstract on page 1 and section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of claim 23 are rejected in the analysis of claim 21 above, and the claim is rejected on that basis.

With respect to claim 24, Chen further teaches segmenting the document using a position of text in the document (section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of claim 24 are rejected in the analysis of claim 23 above, and the claim is rejected on that basis.

With respect to claim 26, Buyukkokten teaches displaying the at least one keyword and summary (fig. 4 on page 3 and section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4).

7. Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buyukkokten et al. ("Seeing the Whole in Parts: Text Summarization for Web Browsing on Handheld Devices", WWW10, May 2-5, 2001, Hong Kong) in view of Malone et al. (U.S. Publication No. 2002/0038348) and Chen et al. ("Detecting Web Page Structure for Adaptive Viewing on Small Form Factor Devices, WWW2003, May 20-24, 2003,

Dudapest Hungary), and further in view of Kadayam et al. (U.S. Publication No. 2006/0259476).

With respect to claim 11, Buyukkokten teaches retrieving a plurality of documents (i.e., web pages from the World-Wide Web, fig. 1 on page 1 and section 3. THE SUMMARIZATION PROCESS on pages 4-6); segmenting each of the plurality of documents into blocks of text (i.e., partitioning the web page into STUs, section 1. INTRODUCTION on pages 1-2); determining at least one keyword and a summary for each of the plurality of documents that is indicative of multiple blocks of text in each of the plurality of documents, and providing an output of the at least one keyword and summary for each of the plurality of documents (i.e., *keyword/Summary*, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4; i.e., document is summarized, section 1. INTRODUCTION on pages 1-2). Buyukkokten does not explicitly disclose determining a file type for the document. However, Malone teaches determining a file type for the document and parsing the document as a function of the file type (fig. 7, section 49 on page 5 and sections 50, 52, and 56 on page 6) in order to enable access to any type of information and extract content information. Therefore, based on Buyukkokten in view of Malone, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Malone to the system of Buyukkokten in order to enable access to any type of information and extract content information. Buyukkokten and Malone do not explicitly disclose identifying segmentation points in the document. However, Chen teaches identifying segmentation points in the document (Abstract on page 1 and section 3.

PAGE ANALYSIS on pages 3-10) in order to improve the user's browsing experiences on a device with a small display. Therefore, based on Buyukkokten in view of Malone, and further in view of Chen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Chen to the system of Buyukkokten in order to improve the user's browsing experiences on a device with a small display. Buyukkokten, Malone, and Chen do not explicitly disclose rendering a list of the plurality of documents including the at least one keyword and summary associated with each of the plurality of documents. However, Kadayam teaches rendering a list of the plurality of documents including the at least one keyword and summary associated with each of the plurality of documents (section 24 on page 4, fig. 3, fig. 16., and fig. 18) in order to provide an overview of relevant documents to a search query. Therefore, based on Buyukkokten in view of Malone and Chen, and further in view of Kadayam, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Kadayam to the system of Buyukkokten in order to provide an overview of relevant documents to a search query.

With respect to claim 12, Buyukkokten teaches segmenting includes using outline information to segment text in the document (i.e., partitioning based on paragraphs, lists, tag, or other structural information, section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4).

With respect to claim 13, Chen further teaches segmenting includes analyzing HTML tags in the document and segmenting text in the document based on the HTML tags (Abstract on page 1 and section 3. PAGE ANALYSIS on pages 3-10). Therefore,

the limitations of claim 13 are rejected in the analysis of claim 11 above, and the claim is rejected on that basis.

With respect to claim 14, Chen further teaches segmenting includes using a position of text in the document (section 3. PAGE ANALYSIS on pages 3-10).

Therefore, the limitations of claim 14 are rejected in the analysis of claim 13 above, and the claim is rejected on that basis.

With respect to claim 15, Buyukkokten teaches providing at least one keyword and a summary for each block of text in the document (i.e., *Keyword/Summary* for each STU, section 3.2 Extracting Summary Sentence on pages 5-6).

With respect to claim 16, Buyukkokten teaches displaying the at least one keyword and summary (fig. 4 on page 3 and section 2. ALTERNATIVE STU REPRESENTATION METHODS on pages 2-4).

With respect claim 17, Buyukkokten teaches generating at least one keyword and a summary for individual blocks of text within the document (i.e., *Keyword/Summary* for each STU, section 3 THE SUMMARIZATION PROCESS on pages 4-6).

With respect to claim 18, Chen further teaches establishing potential segmentation points based on text in the document (i.e., identifying content blocks from the semantic structure of a web page in an iterative manner, Abstract on page 1, section 2. OUR APPROACH on page 3, and section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of claim 18 are rejected in the analysis of claim 11 above, and the claim is rejected on that basis.

With respect to claim 19, Chen further teaches determining final segmentation points based on similarity of adjacent blocks of text surrounding the potential segmentation points (i.e., identifying content blocks from the semantic structure of a web page in an iterative manner, Abstract on page 1, section 2. OUR APPROACH on page 3, and section 3. PAGE ANALYSIS on pages 3-10). Therefore, the limitations of claim 19 are rejected in the analysis of claim 18 above, and the claim is rejected on that basis.

8. Claims 10 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buyukkokten et al. ("Seeing the Whole in Parts: Text Summarization for Web Browsing on Handheld Devices", WWW10, May 2-5, 2001, Hong Kong) in view of Malone et al. (U.S. Publication No. 2002/0038348) and Chen et al. ("Detecting Web Page Structure for Adaptive Viewing on Small Form Factor Devices, WWW2003, May 20-24, 2003, Budapest Hungary), and further in view of Emens et al. (U.S. Patent No. 6,493,744).

With respect to claim 10, Buyukkokten, Malone and Chen disclose the claimed subject matter as discussed above except converting an audio file to a text document. However, Emens teaches converting an audio file to a text document (abstract and fig. 3) in order to create semantic units of the audio file. Therefore, based on Buyukkokten in view of Malone and Chen, and further in view of Emens, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the

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teaching of Emens to the system of Buyukkokten in order to create semantic units of a audio file.

With respect to claim 30, Buyukkokten, Malone and Chen disclose the claimed subject matter as discussed above except converting an audio file to a text document. However, Emens teaches converting an audio file to a text document (abstract and fig. 3) in order to create semantic units of the audio file. Therefore, based on Buyukkokten in view of Malone and Chen, and further in view of Emens, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Emens to the system of Buyukkokten in order to create semantic units of a audio file.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buyukkokten et al. ("Seeing the Whole in Parts: Text Summarization for Web Browsing on Handheld Devices", WWW10, May 2-5, 2001, Hong Kong) in view of Malone et al. (U.S. Publication No. 2002/0038348), Chen et al. ("Detecting Web Page Structure for Adaptive Viewing on Small Form Factor Devices, WWW2003, May 20-24, 2003, Budapest Hungary), and Kadayam et al. (U.S. Publication No. 2006/0259476), and further in view of Emens et al. (U.S. Patent No. 6,493,744).

With respect to claim 20, Buyukkokten, Malone, Chen and Kadayam disclose the claimed subject matter as discussed above except converting an audio file to a text document. However, Emens teaches converting an audio file to a text document (abstract and fig. 3) in order to create semantic units of the audio file. Therefore, based

on Buyukkokten in view of Malone, Chen and Kadayam, and further in view of Emens, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Emens to the system of Buyukkokten in order to create semantic units of a audio file.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

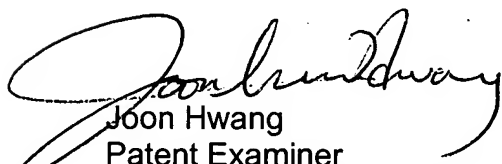
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joon Hwang
Patent Examiner
Technology Center 2100

3/30/07